

Emperor® Clock Company

Model 100 M Movement

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On this and the following pages you will find specifications, installation instructions, proper operation and trouble shooting information to assure you satisfaction with your Emperor Grandfather Clock Movement, now and in the future. The Emperor Movement, designed and manufactured to West German specifications, provides a beautiful, melodious sound on the eight balanced and musically tuned chime rods. Our clocksmiths have made a thorough and complete check of your movement in their modern, humidity controlled rooms that also contain a complete inventory of all parts used and the finest in clock test equipment. We invite you to visit our plant when you come to the Fairhope area, located on beautiful Mobile Bay, 50 miles west of Pensacola, Florida and 25 miles east of Mobile, Alabama. Emperor Industrial Park, Fairhope, Alabama 36532.

SPECIFICATIONS

SIZE OF DIAL – 9 13/16" Wide x 13" Long.

DIAMETER OF PENDULUM BOB – 4".

MOVEMENT PLATE SIZE – 5 1/8" Wide x 5" Long.

DISTANCE FROM CENTER POST TO CENTER OF

BOB – 31 1/2" (LENGTH OF PENDULUM).

8 DAY, WEIGHT DRIVEN, CHAIN WIND, FULL

WESTMINSTER CHIMES, CHIMES EACH

QUARTER HOUR. STRIKES EACH HOUR.

SIZE OF WEIGHT SHELLS – 1 3/4" Diameter x 10 1/4" Long.

LENGTH OF HAND CENTER SHAFT TO HAND NUT – 1 1/2".

TOTAL WEIGHT ON EACH SHELL COMPLETE WITH WEIGHT FILLER – 6 Pounds.

Installation & Operating Instructions

CAREFULLY UNPACK THE MOVEMENT and accessories. The chains for your movement have been installed in our plant. The Suspension Spring, Part No. 34, has been carefully attached at the factory when your movement was pre-run to check for any mis-adjustments. Study the details, photographs, and drawings before proceeding with installation or operation of your Emperor Grandfather Clock. For models A Series (movements installed by factory) follow steps 6 through 12.

STEP 1: All moon dials and regular Tempus Fugit dials that are sent by the company to customers who purchased Kits, or assembled Un-finished cases shall be sent with the movement installed in the assembled movement mount. **CAREFULLY UNPACK THE MOVEMENT** and accessories which consist of the pendulum bob, chime rods, weight shells and in a separate box, the weights. **DO NOT LAY THE MOVEMENT** on its back. Stand the movement upright by leaning it against something or laying it face down on a soft cushion.

STEP 1B: Release the silence levers (No. 19 & No. 20). Remove the chain tie. **NOTE:** The chains can run freely through the sprockets in the direction away from the weight and weight hook. As you remove the chain tie take care not to pull the chain through the sprocket. Make sure the chains hang freely in the slot at the base of the movement mount. Center the front of the dial face on the movement mount and tighten the mounting screws finger tight. (Figure 1 & Step 2)

STEP 2: If the chains have fallen from the main wheel during transit they may be replaced as follows: (a.) **CHIME SIDE**, lift the chain over and on to the main wheel from the side of the movement. (b.) **CENTER WHEEL** (time train), the chain may be fished-up through the top of the movement mount (removed from the case) with a wire hook. The chain may then be dropped on to the main wheel from above. (c.) **HOUR SIDE**, the chain may be raised by a wire hook from above and placed on to the main wheel with your fingers from the side. If the **HOUR SIDE** chain ends become jammed into the wheel the chain link may be opened and the chain removed. The chain may then be placed upon the main wheel and threaded from the side. **NOTE: CHAIN ENDS MUST BE POSITIONED** with closed and opened ends as illustrated in Figure 1.

STEP 3: Drill six small holes, three on each side of the plywood frame of the movement mount, caution should be taken not to damage the center shaft or hands by laying the movement face down on a hard surface. Insert the movement and movement mount into the clock case from the rear by placing the top end first followed by the bottom, and then the chains. Have another person stand at the front of the clock and align the scroll work on the face or dial. Install six screws into the back through the plywood part of the movement mount and dial frame of the clock case. (Figure 1) Take care not to use screws too long and have them go through the dial frame. Do not drill through the brass dial.

STEP 4: Locate the center of the sound board. Draw a vertical line, this line becomes the center point for the chime rods. **NOTE:** the chime rods are located to the rear of the movement and are not centered in the clock case to allow for the pendulum swing. Use the chime rods for your template and make sure the metal plate is flush with the top of the sound board. Drill the four holes needed, two on each side of the center line you have drawn. Use a 1/4" or slightly larger drill. Counter sink the holes for the four bolts furnished. Install the chime rods. Figure 3. Model 120 case shown.

STEP 5: **EACH OF THE CHIME LEVERS MUST BE BENT** to strike the chime rods on the center of the hammer. Hold each chime lever near the base with a pair of long nose pliers. Place your forefinger on the hammer, your thumb on the chime lever, just above the end of the pliers. Bend each lever back as needed to make proper alignment. Hold the pliers vertically to protect the base of each chime lever from pressure of bending and possible breakage. The hammer should clear each rod approximately 1/8" for the best tone. The closer to each rod the louder the tone; by moving the hammer farther back from the rod you will lighten and soften the tone. Figure 2, 2A and 2B.

STEP 6: Release the silence levers (No. 19 & No. 20) away from the chime levers and hour strikers. (Fig. 1). Place the Suspension Arm Assembly (No. 38) on the Suspension Spring (No. 34) as shown. Make sure the Suspension Arm Assembly fits without binding in the slot provided for it by the Anchor Assembly (No. 43). See Figure 12, Page 9.

STEP 7: Insure that the chains are properly threaded on the main wheels (Step No. 2 & Fig. 1). Place the weights in the brass weight shell. The preforated end on each chain is hooked to the chain weight holder hook. Wipe all fingerprints with a clean, lint-free cloth. Figure No. 4

STEP 8: Install the Pendulum Bob on the Pendulum and hang through the slot on the Suspension Arm Assembly as shown in Figure 6 and 12.

STEP 9: From the front of the case, allow the Pendulum to swing gently by holding the bob against one side of the case and releasing it to swing freely. The bob should not strike the opposite side of the case, if it does, this indicates the case is low on the side where the bob hits the case. (This may be corrected by raising the clock case

In the event you move your clock from one room to another, always remove the weights, and the pendulum, to prevent damage to the working parts of the movement. When leaving your home for periods of over one week we suggest stopping your clock by stopping the pendulum.

Should silent operation be desired, without chimes or hour strike, remove the weight filler from the chime side (right side) and replace the empty weight shell on to the chain to retain symmetry. This must be done only after the clock has completed the 16 note chime and any hour strike. The time train will continue to run properly but the chime train, and strike train weights will remain at a constant level while the center weight descends.

Your movement has been completely checked in our modern clock department. However, as with all mechanical products, some maladjustment may occur either in transit or in future years. For this reason, we maintain a complete inventory of every part in the Model 100M movement at our Fairhope, Alabama plant.

Operating & Trouble Shooting

In the event your movement does not operate properly – check the following:

1. CLOCK MOVEMENT DOES NOT OPERATE

- (a) Check levelness, both front to back and side to side. See Step 9.
- (b) Suspension Spring is broken, see Figure 12 for replacement.
- (c) Chains are twisted on main wheel.
- (d) If the movement runs for awhile and stops:
 - (1) Check for proper fit of anchor arm and suspension arm assembly with pendulum and center weight attached. Figure 12.
 - (2) Binding, hand nut too tight.
 - (3) Anchor Arm Assembly adjustment, see Figure 12.
- (e) Minute hand bushing touching the hour hand. Move the hour hand on the hour tube toward dial, see Figure 7.

2. CHIMES DO NOT OPERATE PROPERLY

- (a) Release chime silence lever No. 20, Figure 1.
- (b) If the clock chimes at the wrong hour, such as striking 4 notes (quarter hour) when the minute hand is on the half hour (after the clock has operated 24 hours) remove nut and minute hand; then re-set hand after a 16 note chime series and any hour strike. See Figure 7.
- (c) Minute hand is not exactly on the hour when striking. Remove hand and turn minute hand bushing to right or left as needed and replace. Figure 7.
- (d) Chains are twisted on main wheel.
- (e) Check to make sure you have proper amount of weight, additional weight may be added.
- (f) Loosen movement mounting screws, Figure No. 1.
- (g) Check hammer draw-back – should be only one hammer length draw-back. Chime function, Figure 8.

on that side, or lowering the clock case on the high side.) The Pendulum must swing without having the bob strike the case when released from either side. Use the four floor levelers in the base of the cabinet to level. (Fig. 13) Do not use a carpenters level. More detail for starting procedure may be found on Page 9 and 10.

STEP 10: You should hear and even “tic” and “toc” providing the Suspension Arm Assembly is properly installed as in Fig. 12. If uneven, check again for levelness. . . both side to side and front to back. If it does not your clock movement is uneven. **THIS IS IMPORTANT.** After assuring proper leveling, allow the clock to operate for 24 hours before any regulation is made for fast or slow adjustments. During this period, the clock will self-adjust for proper hour chiming.

STEP 11: The regulation of your clock is finished simply by means of the adjustment nut located at the bottom of the Pendulum Stick. To slow the clock down, move the adjustment nut (and the bob) toward the base of the clock. To make the clock run faster, move the adjustment nut upward. Figure No. 6. One complete turn equals 30 seconds in 24 hours.

STEP 12: You may now proceed with installing the back on your clock case.

- (h) If movement begins to chime and stops, check chime synchronization. Figure 8.

3. HOUR STRIKERS DO NOT OPERATE

- (a) Release hour silence lever No. 19, Figure No. 1.
- (b) Make sure that movement mounting screws are not too tight. This will cause a bind in the strike and chime train. Figure No. 1.
- (c) Check to see that the chains are on the main wheels and there are no knots in them. The chains should be free, so a click can be heard when they are pulled up.

4. CLOCK WILL NOT ADJUST TO PROPER TIME

- (a) If clock is running too fast or too slow, re-check Step 11.

5. CLOCK STRIKES OUT OF SEQUENCE

- (a) Hour hand was pushed to incorrect hour during shipping. See Figure 7 or 9.

6. CLOCK STRIKES SIDE OF CASE

- (a) Check levelness, Step 9.
- (b) Center Part 38A, Figure 12.
- (c) Re-set Anchor Assembly (No. 43) as described in Figure No. 14. Pendulum swing should be approximately 7½” side to side.

WESTMINSTER CHIMES



Lord through this hour,
Be Thou our guide
So, by Thy power
No foot shall slide.

Melody composed by Handel, "I Know That My Redeemer Liveth".

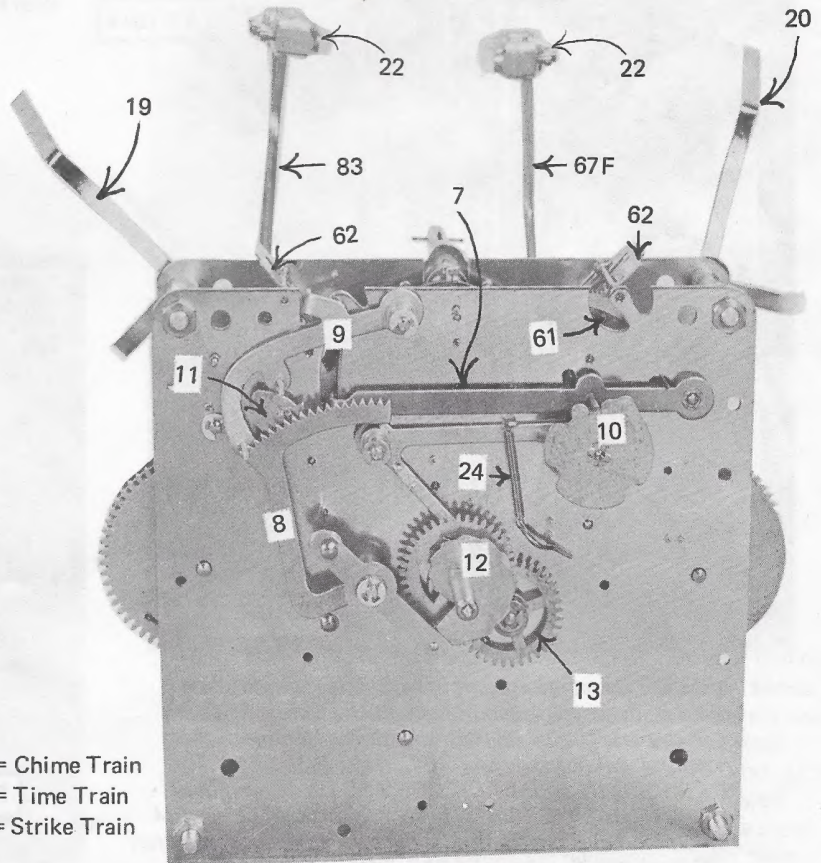
Tune played by Big Ben in London, England.

PARTS LIST

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- 6A - Hour & 6B Minute Hand
- 7 - Long Lever Assembly
- 8 - Hour Rack Assembly
- 9 - Hour Hook Assembly
- 10 - Locking Disc Assembly
- 11 - Gather Pallet Assembly
- 12 - Hour Tube Assembly
- 13 - Intermediate Wheel Assembly
- 15 - Lifting Lever Assembly
- 16 - Hand Set Nut
- 24 - Lifting Lever Spring
- 19 - Silence Lever S.T.
- 20 - Silence Lever C.T.
- 83 - Hour Strike Shaft Assembly
- 22 - Hammers
- 67D - C.T. Bridge Screw
- 67K - C.T. Lever Spring
- 67F - Chime Levers
- 67E - C.T. Cylinder Assembly
- 30 - C.T. Cylinder Gear Assembly
- 31 - C.T. Cylinder Bridge
- 32 - C.T. Cylinder Bridge Post
- 33 - C.T. Banking Spring Post
- 34 - Suspension Spring
- 35 - Anchor Bridge Assembly
- 36 - Bridge Screws
- 37 - Taper Pin
- 38 - Suspension Arm Assembly
- 38A - Assembly Adjusting Arm
- 41 - Movement Mounting Bracket
- 42 - Movement Mounting Screws
- 43 - Anchor Arm Assembly
- 44 - T.T. Main Wheel Assembly
- 45 - Escape Wheel Assembly
- 46 - 3rd Wheel T.T. Assembly
- 47 - Center Shaft Assembly
- 90 - 2nd Wheel T.T. Assembly
- 49 - S.T. Idler Gear

- 62 - S.T. Fan Assembly
- 51 - S.T. Gathering Shaft Assembly
- 44 - S.T. Main Wheel Assembly
- 53 - S.T. 2nd Wheel Assembly
- 54 - S.T. Star Wheel Assembly
- 55 - S.T. Warning Wheel Assembly
- 56 - S.T. Tension Spring
- 44 - C.T. Main Wheel Assembly
- 90 - C.T. 2nd Wheel Assembly
- 59 - C.T. Locking Disc Shaft
- 60 - C.T. Gathering Shaft Assembly
- 61 - C.T. Warning Wheel Assembly
- 62 - C.T. Fan Assembly
- 63 - C.T. Stop Hook Assembly
- 64 - C.T. Double Stop Hook Assembly



NOTE: C.T. = Chime Train
T.T. = Time Train
S.T. = Strike Train

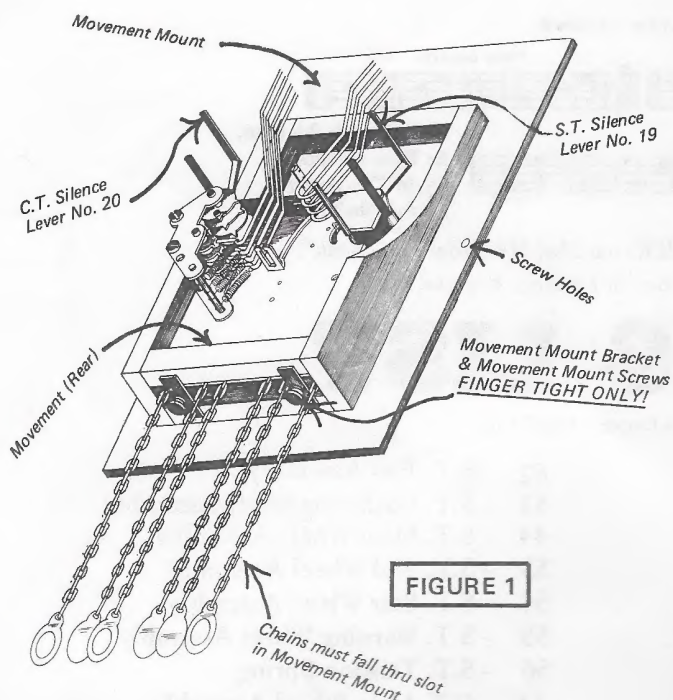


FIGURE 1

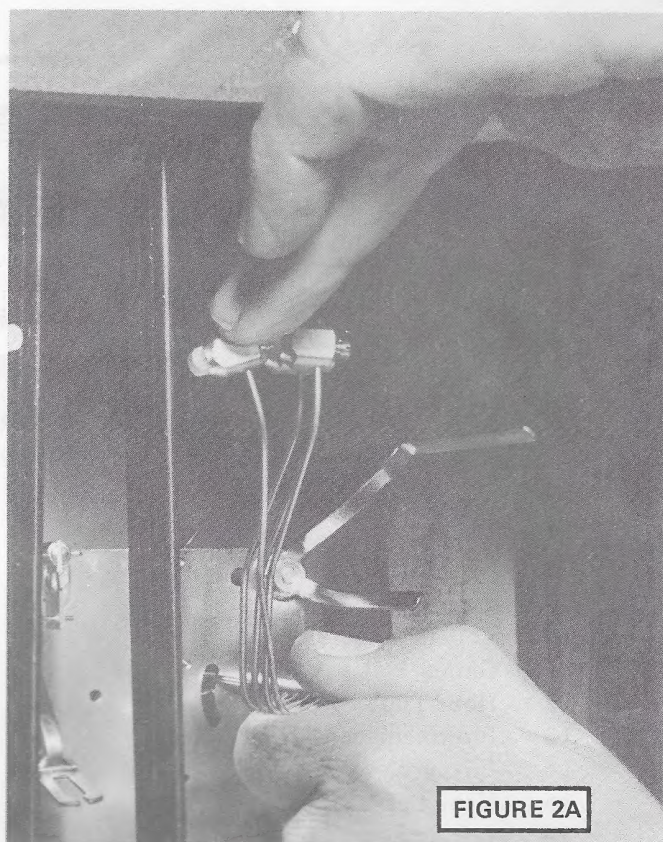


FIGURE 2A

The Hour Shaft Assembly (No. 83) must be supported with the left hand while bending the Hour Strike Levers to align with Chime Rods. Pin "A" must be held in a non-pressure position to prevent changing it's position while bending the strike levers. (See Figure 2B for detailed photograph).

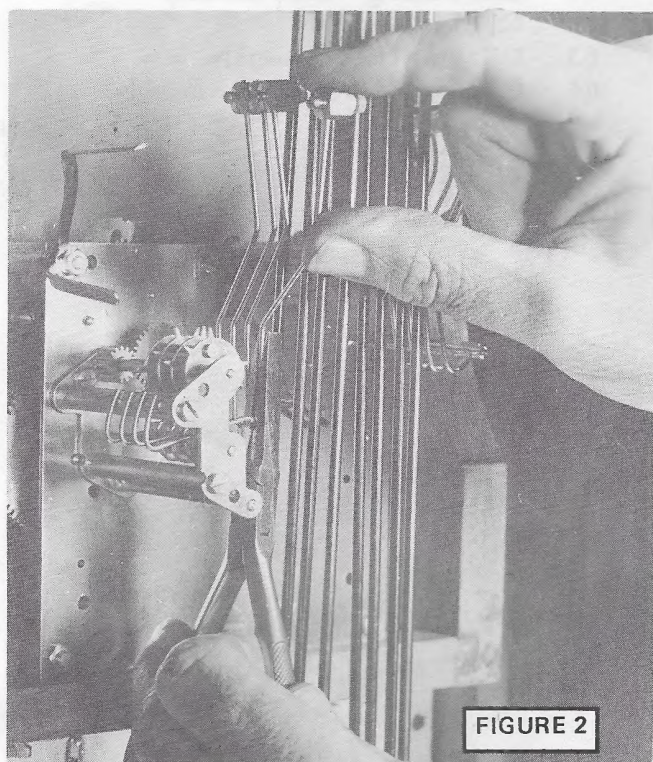


FIGURE 2

*This is the correct position of the Chime Hammers and Chime Rods when placed in case. If the Chime Rods are set in the case to line up with the Chime Hammers, the Pendulum will not swing. **THE CHIME RODS MUST BE PLACED IN THE BACK OF CASE (as shown above) AND THE HAMMERS BENT TO LINE UP WITH THEM.** The Chime Levers must also be bent to allow approximately 1/8" from the Hammer and Chime Rod.*

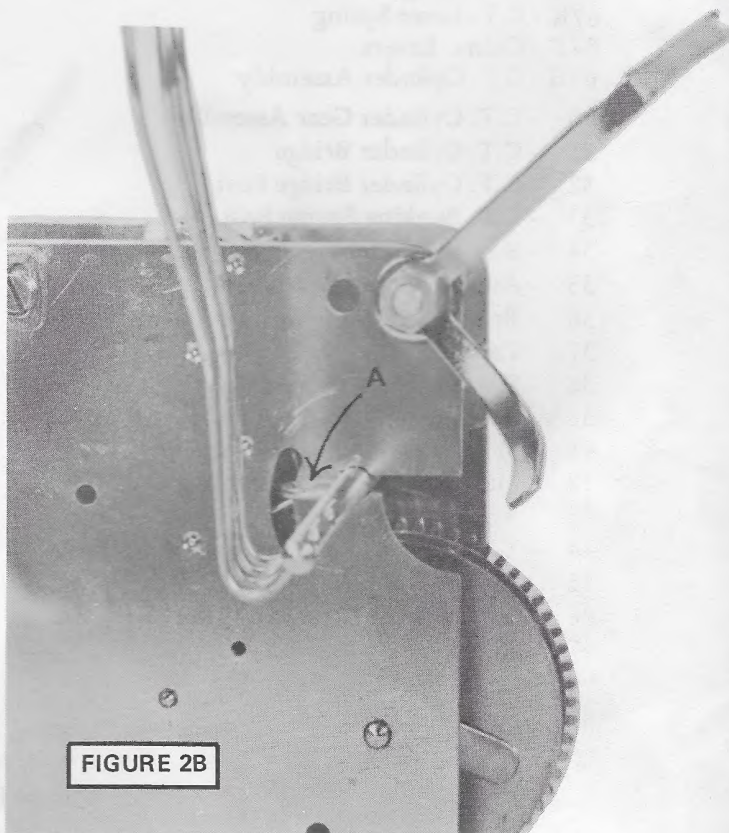


FIGURE 2B

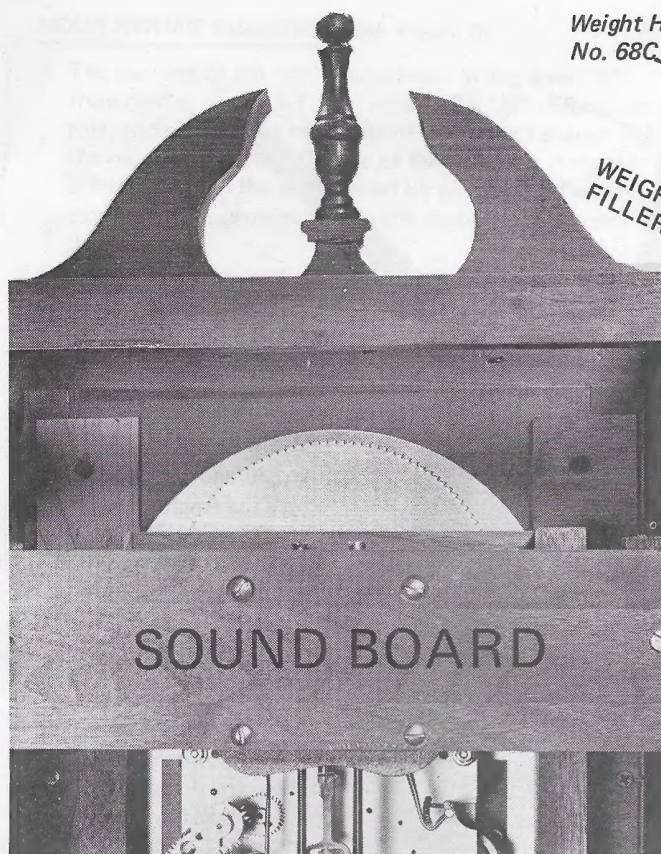


FIGURE 3

Weight Hook
No. 68C

WEIGHT
FILLER

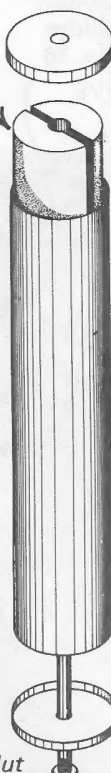


FIGURE 4

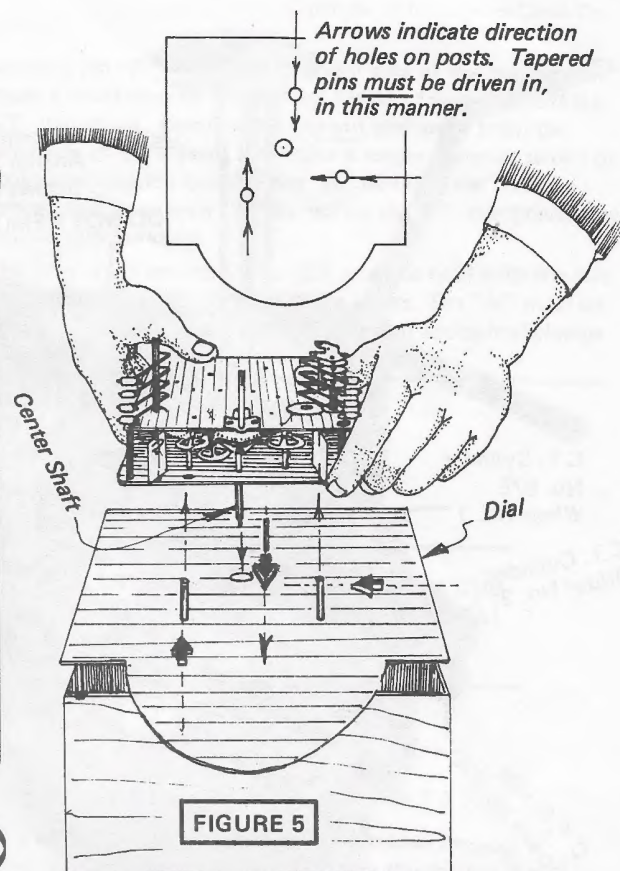


FIGURE 5

REMOVING THE DIAL:

Unscrew the hand nut on the center shaft, remove the hands, be sure to note the position of the hands. See Figure 7 for setting of hands. To put back on reverse the procedure.

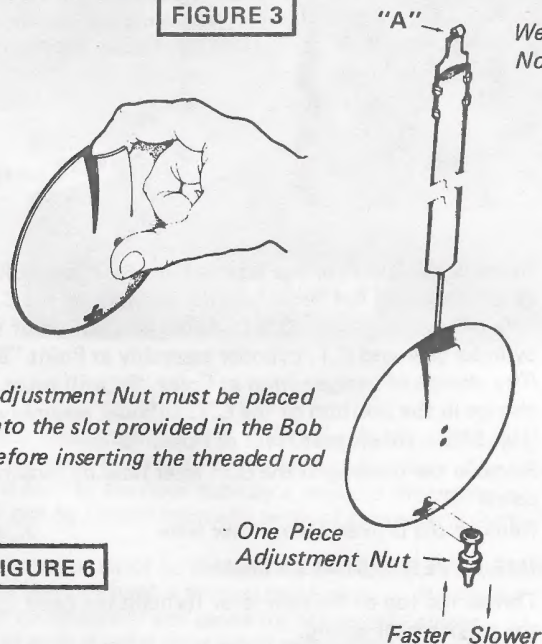


FIGURE 6

NOTE: One complete turn of the Adjustment Nut is equal to 30 seconds in 24 hours.

1. Support the Pendulum Stick with one hand to prevent damage to the Suspension Spring while making Pendulum Bob adjustment.
2. The metal tab cut-out on the rear of the Bob must be bent outward to permit easy installation of the Pendulum Stick.
3. Should the Pendulum Bob not hang straight due to a warping of the Pendulum it may be corrected by twisting the metal tip "A" of the Pendulum in the same direction as the Bob twist.
4. About 1 inch of thread will show beyond the end of the Adjustment Nut.

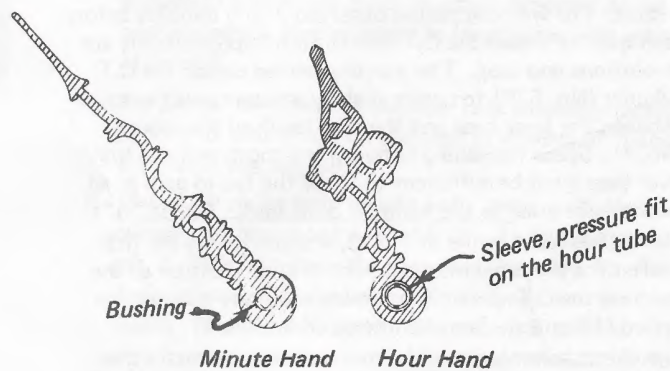
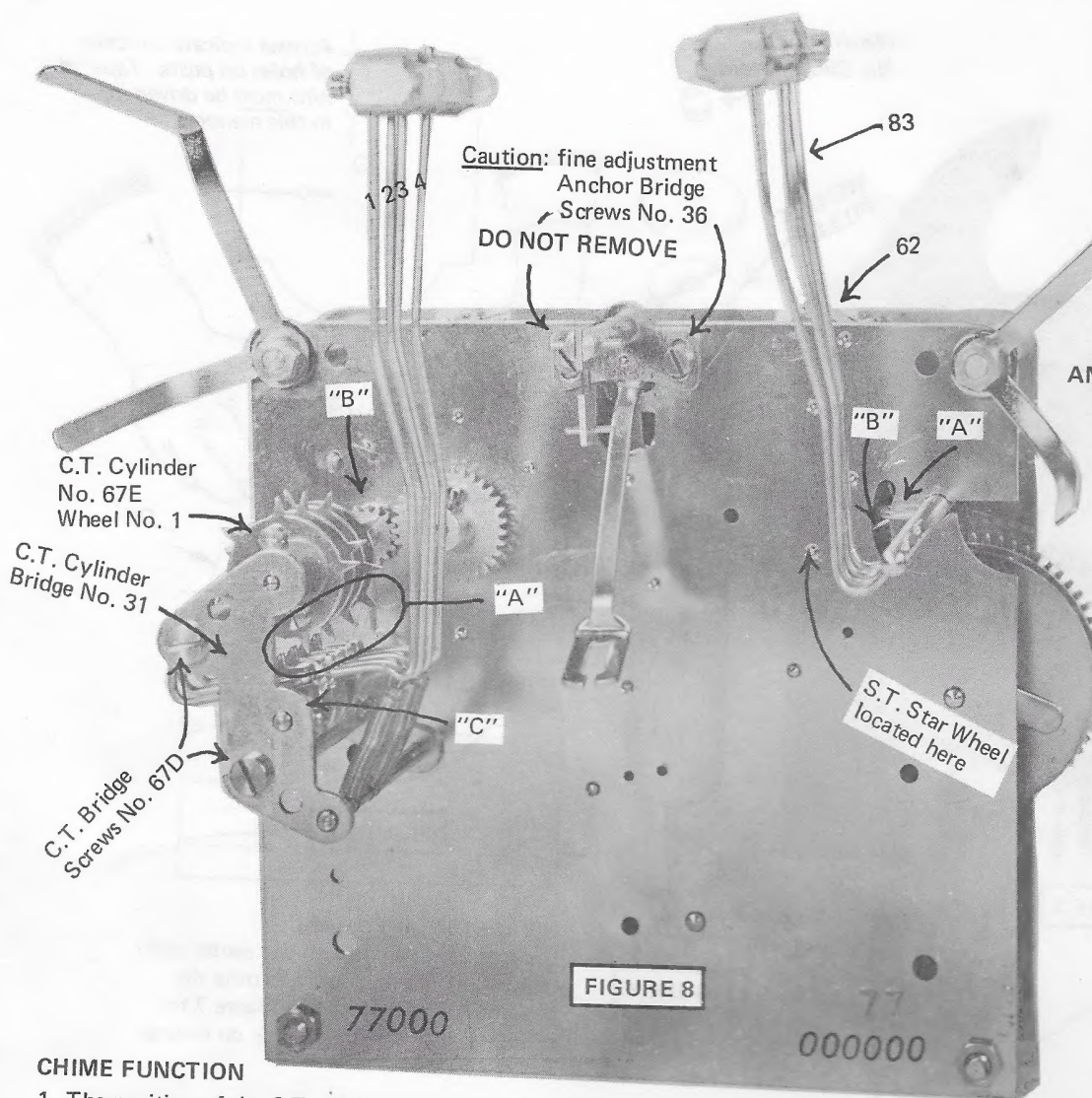


FIGURE 7

HOW TO SET THE HANDS: When you have put your dial on, turn the min. hand on the center shaft until the clock chimes 16 times, and strikes the hour. Stop pendulum. Take the hour hand and close the gap in the sleeve—slightly (see drawing), and place it on the hour it struck. Take the minute hand, turn the bushing with pliers until it is lined up with the squared portion on the center shaft at 12 o'clock. Place minute hand on the center shaft and screw on the hand nut. Finger tight only.



ANCHOR BRIDGE ADJUSTMENT

(Caution: fine adjustment, factory set.) Loosen one Anchor Bridge Screw slightly (No. 36) and gently raise or lower the Anchor Bridge Assy. (No. 35). CAUTION: take off Middle Brass Weighted Shell during this operation. Should the clock gain 45 minutes or more per day, the Anchor Bridge Assy. (No. 35) is too high or No. 38A does not fit into No. 43 as shown in Fig. 12. Tap down slightly. Raising the Bridge narrows the Pendulum swing and speeds the clock. Lowering the Bridge increases the Pendulum swing and slows the movement. Reset Pallet, see Fig. 12.

CHIME FUNCTION

1. The position of the C.T. cylinder assembly (No. 67E) is critical. The warning period observed 3 to 5 minutes before each quarter causes the C.T. fan to turn approximately six revolutions and stop. The warning period causes the C.T. cylinder (No. 67E) to rotate slightly and narrows the space between the lever base and the first tooth of the wheel (No. 1). Space remaining between the tooth and the first lever base must be sufficient to allow the fan to gain good momentum prior to the hammer draw-back. (Point "A").
2. The chimes must strike in 1, 2, 3, 4 sequence on the first quarter for proper synchroization. Notice position of the teeth on the C.T. cylinder assembly after any hour chime period (16 notes). See illustration (Point "A").
3. The chime hammers must be free and clear of each other when striking. Only one lever draws back at a time, approximately one hammer length.

CHIME LEVER REMOVAL

1. Cause the movement to chime 16 notes & strike any hour. Stop the pendulum motion to prevent any further motion of the movement.
2. Notice the exact position of the teeth on the C.T. cylinder assembly (No. 67E). The (No. 1) wheel of the C.T. cylinder assembly should be positioned with the (No. 1) directly behind the C.T. cylinder bridge. The tooth of the (No. 1) wheel should point almost to the right edge of the first chime lever base. (Point "A").

3. Remove the 2 C.T. bridge screws (No. 67D) carefully exercising care not to disturb the position of the C.T. cylinder assembly (No. 67E). Avoid dislocation of the C.T. cylinder gear and C.T. cylinder assembly at Point "B". Any change of gear position at Point "B" will cause a change in the position of the C.T. cylinder assembly (No. 67E). (Mark gear teeth at Point "B".)
4. Remove the bushing at the C.T. lever base by loosening screw "C".
5. Remove the broken chime lever base.

CHIME LEVER INSTALLATION

1. Thread the top of the new lever through the open end of the proper lever spring.
2. Place all levers on the lever base shaft & install the C.T. lever base bushing.
3. Insure that the bushing is not compressing the lever bases tightly against each other—this will cause slow chimes or binding.
4. Insure the position of the first tooth in the C.T. cylinder assembly (No. 67E) is in proper position. (Point "A").
5. Install C.T. cylinder bridge.

1. The purpose of pin "A" is to prevent lifting lever "B" from resting on the S.T. star wheel. Pin "A" is designed to ride, and rest, on the right side of the crescent shaped hole in the movement plate. The arc of the crescent is designed differently than the arc traveled by pin "A" and will friction stop the pin approximately in the center of the crescent on the downstroke.
2. Proper positioning of pin "A" within the crescent is confirmed by observing the S.T. fan (No. 62) turn and gain full momentum prior to the actual lifting of the hour shaft assembly (No. 83).
3. Bending pin "A" in toward the right side of the crescent will cause a short hammer stroke and lifting of lever "B" off the S.T. star wheel. Bending the pin out and away from the right side of the crescent will cause a longer hammer stroke or strike malfunction because pin "A" will ride the crescent deeper and cause lever "B" to rest on the S.T. star preventing momentum build-up.
4. The hour shaft assembly (No. 83) must be held with the left hand while bending the hour strike levers. Pin "A" must be held in a non-pressure position to prevent accidental change of position while bending the strike lever.

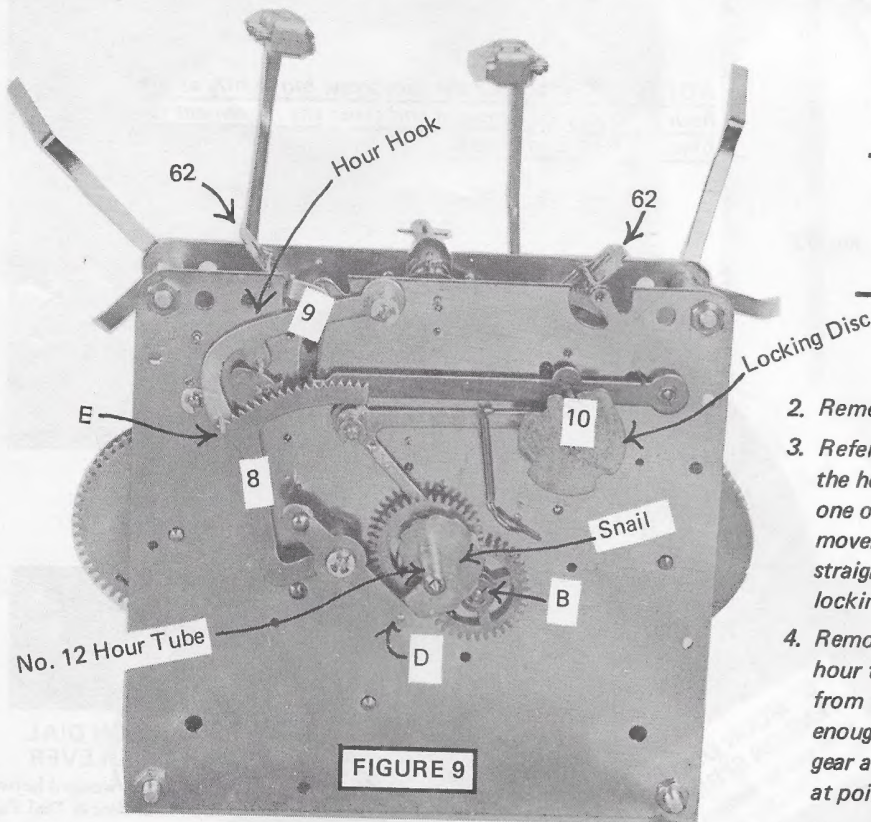


FIGURE 9

ALL REPAIRS MUST BE MADE IN OUR FAIRHOPE, ALABAMA PLANT, LOCAL REPAIRS NOT AUTHORIZED.

IMPROPER HOUR STRIKE

If the clock strikes 1 at 2, 2 at 3, etc. for full 12 hours, move the hour hand only to the correct position. The hour hand is held to the hour tube by a pressure fitting sleeve which can be turned manually without removing it from the clock.

To set your clock to the next hour as a check move the minute hand through a normal revolution. . . Remember always move slowly and pause for the normal chime cycle at each quarter hour when moving the minute hand.

Should the clock skip, or repeat an hour. . . setting of the hour tube snail may be required as follows:

SETTING THE HOUR TUBE

1. Run the clock through at least a three hour cycle observing to see if it will chime 4 notes at the $\frac{1}{4}$ hour, 8 notes at the $\frac{1}{2}$ hour, 12 notes at the $\frac{3}{4}$ hour, and 16 notes at the hour (this procedure will synchronize the movement). Stop the clock and remove the weights immediately after the clock has chimed 16 notes and has struck the hour of 12.

2. Remove the hands and the dial. (Figure 5 & 7).
3. Refer to Figure 9 and notice that the snail portion of the hour tube assembly No. 12 in the illustration is at one o'clock strike position. The hour tube on your movement will have the long part on the snail pointing straight down (12 o'clock striking position). The locking disc must be in same position as illustrated.
4. Remove the black washer at point B, this will allow the hour tube assembly No. 12 to come forward and disengage from the teeth of wheel B. Pull the hour tube forward enough to turn it one tooth in either direction of the gear at point B then re-insert to mesh again with gears at point B.
5. The pin on the inside of the hour rack assembly located at point D should rest on the snail as illustrated. (About $\frac{1}{8}$ " from the long edge.)
6. Install the strike train weight (left) only. Lift, then release, the hour hook assembly No. 9 slightly by raising pin E. This will allow the hour rack assembly No. 8 to fall just enough to permit pin E to engage into the first notch. (1 o'clock position) Should pin E fall into any notch other than the first as described; check step No. 5.
7. Install the hour and minute hand at 1 o'clock. Do not replace washer B at this time. Carefully check the hour strike at all hours, do not pull on the hour tube (forward) as this would cause disengagement of the gears at point B. If the hour does not strike correctly at all 12 hours repeat step 5 and 6.
8. Install washer B, remove the hands (note their position for proper replacement), install the dial, install the hands in the same position as before.
9. Cause the clock to chime and strike as in step No. 1 for a full 12 hours to check the results of the adjustment.

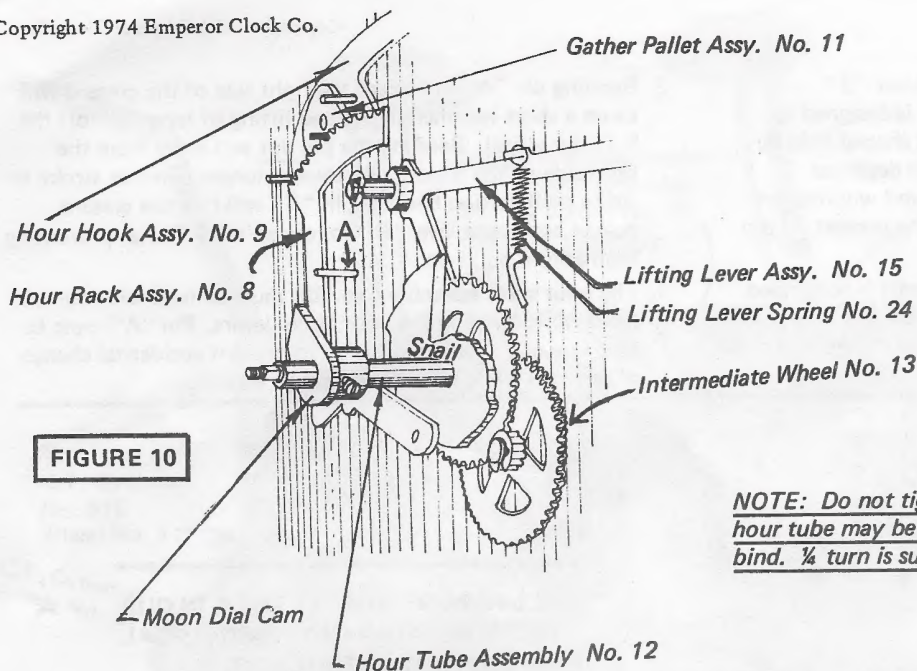


FIGURE 10

TO SET THE MOON DIAL CAM:

Turn the hour tube to the position shown on the illustration. Then take the moon dial cam and place it 3/8" on the hour tube with the tip of the cam lined up with pin "A" on the inside of the hour rack No. 8.

The cam should just clear the back side of the dial. Tighten the screw on the cam and place your dial on. See Fig. 5 for placing dial on.

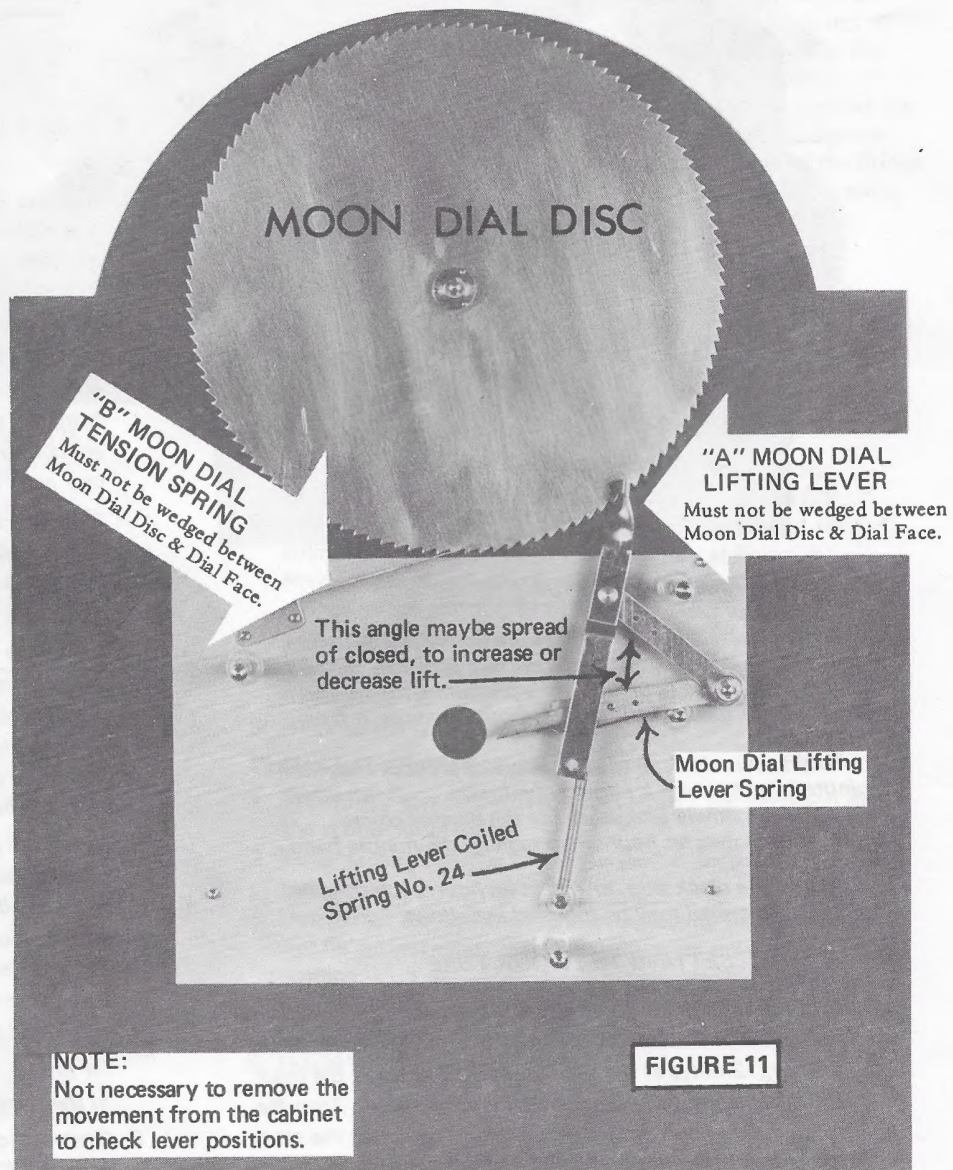
NOTE: Do not tighten the cam screw too tightly as the hour tube may be damaged and cause the movement to bind. 1/4 turn is sufficient.

The moon dial lifting lever must be in the position shown. The moon dial cam, located on the hour tube, will turn one revolution every twelve hours and will cause a lifting action on the moon dial lifting lever "A", which in turn raises to push upward on the moon dial disc rotating it one notch. The moon dial disc is held under tension by the moon dial tension spring "B". The proper position of tension spring "B" is confirmed by the audible click which is heard when turning the moon dial disc to the right from the front of your clock. The entire system of the moon dial lifting lever must be free to rise and fall without rubbing on any of the movement mechanisms or the dial backplate.

TO SET THE MOON DIAL

To set the moon dial correctly, consult your Gregorian calendar, or your daily newspaper for the date of a full moon. Center on the moon (scenic picture division) is at 15 on the arch of the moving moon dial when the moon is full. The numerals on the arch indicate a lunar month which always has 29½ days and should not be confused with a calendar month. The moving moon dial, once set, will make one-half of a revolution every 29½ days, moving one notch of the calibrated moon dial every 12 hours.

EXAMPLE: Assuming the date is June 17, 1971, and that you wish to set the moon dial. Consulting a calendar reveals a full moon occurred on June 9, 1971. With finger pressure on the moon dial turn the moon dial clockwise (to the right) until the moon is centered on number 15 of the arch. This indicates where the moon was on June 9, 1971. You have to pass that date by eight days (June 17th) so add the 8 days to the full moon by (16 clicks) to center the moon on number 23 of the arch. Now you have the moon dial indicating that the moon is waning in its 23rd day of its 29½ day cycle.



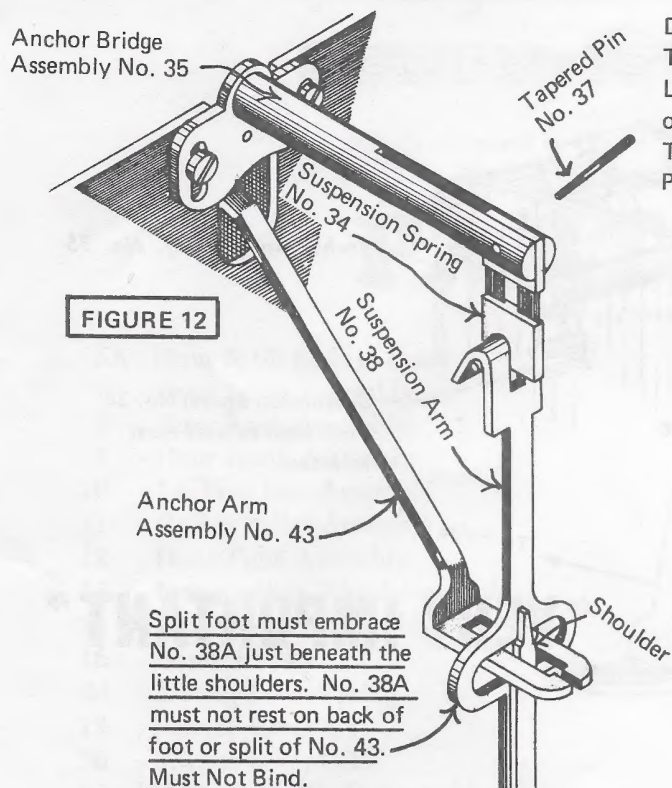
NOTE:

Not necessary to remove the movement from the cabinet to check lever positions.

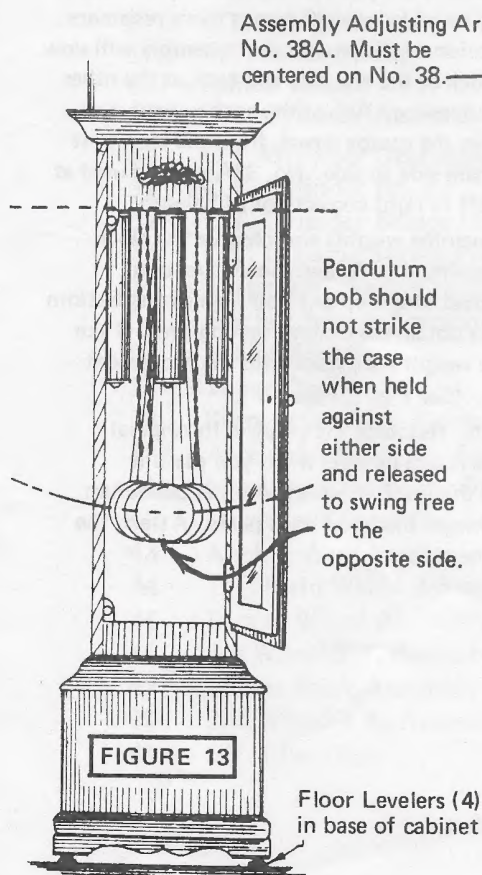
FIGURE 11

How To Level And Start Your Emperor Grandfather Clock

CABINET MODELS 100- 110 - 120 - 200



DO NOT REMOVE ANCHOR BRIDGE ASSY. TO CHANGE SUSPENSION SPRING Line up the hole on Suspension Spring with outside hole on Anchor Bridge. Insert Tapered Pin in the side of Anchor Bridge. Pin should go halfway in.



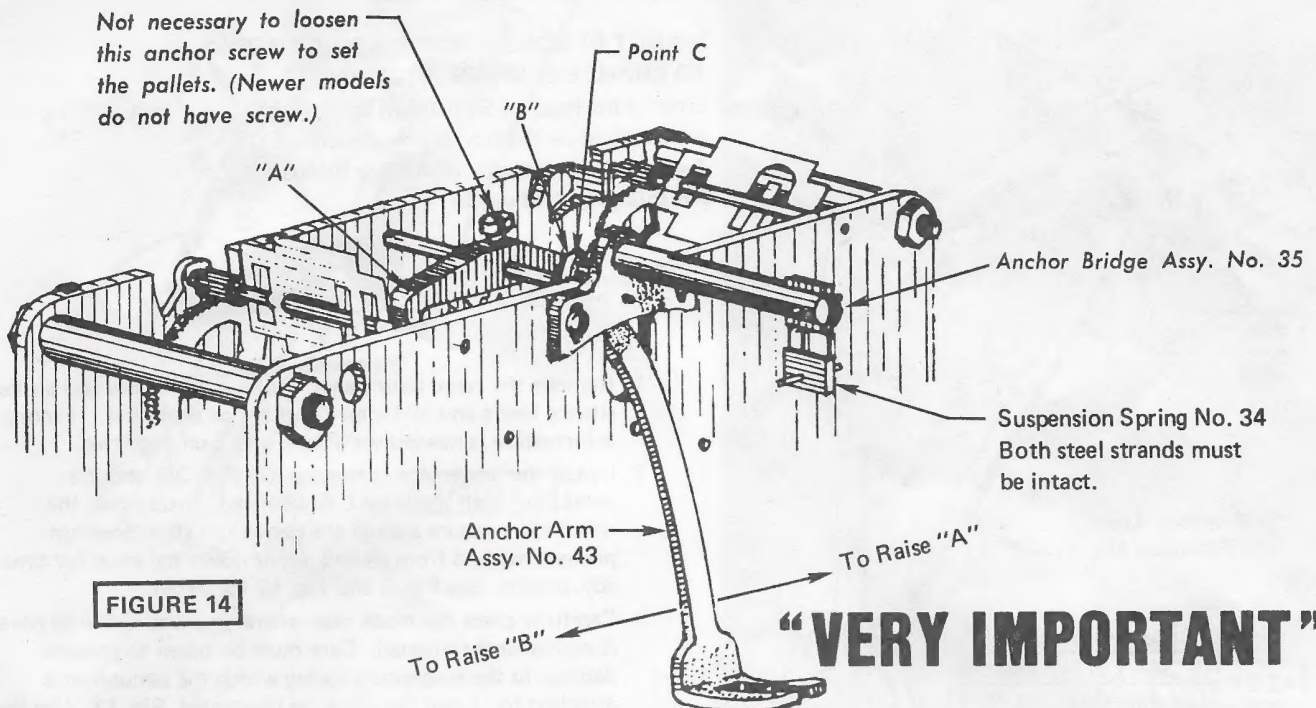
1. Remove the hood back panel. Release the chime and strike silence levers and all factory packing or chain ties. If more information is needed see Step 6 and 7 on page two.
2. Install the suspension arm assembly (No. 38) and the pendulum with the brass bob attached. Insure that the metal tab pressure against the pendulum stick does not prevent the bob from sliding up, or down the stick for time adjustment. See Fig. 6 and Fig. 12 for detail.
3. Carefully place the clock case where you would like to have it permanently situated. Care must be taken to prevent damage to the suspension spring which the pendulum is attached to. Level the clock, as illustrated, Fig. 13. Use the pendulum bob as the leveling device. DO NOT USE A CARPENTER'S LEVEL.
4. When your clock is level as directed, attach all of the weights. See Step 7, Page 2. Start the pendulum swing. The movement should tick at one end of the pendulum swing, and tock at the opposite end of the swing. If the tick, or tock occurs in between the swing, the movement will not operate longer than the momentum you have given the pendulum. You must adjust the anchor assembly.
5. Remove all the weights from the clock. Mark the floor to insure that when the clock is moved from its present location you will be able to return it to the same location. Carefully pull the clock forward so that you may comfortably stand behind it. Relevel the clock, using the pendulum bob as before. Do not change the floor levelers this time. Use paper, or cardboard shims. This will assure the clock will be level when it is moved back to its original position against the wall.

RAISE WEIGHTS TO REWIND CLOCK

SUSPENSION SPRING, (PART NO. 34)
AVAILABLE @ \$1.30 EA., INCLUDES
POSTAGE & HANDLING.

OBTAIN WRITTEN AUTHORIZATION FROM FACTORY FOR WARRANTY REPAIRS
MOVEMENT MUST BE RETURNED IN ORIGINAL SHIPPING CARTON

PAGE NINE



6. Attach the center weight only. The anchor arm assembly (No. 43) should move rapidly from side to side. In the event that No. 43 does not move from side to side, it is an indication that it has been moved off center and must be releveled. The driving force of the time train is transmitted to the escapement wheel located directly beneath the black anchor. The anchor pallets are labeled "A" and "B". The anchor shaft, on which the anchor is attached, is fixed to the anchor assembly arm (No. 43) in a manner which allows adjustment. To change the pallet location, place your thumb and index finger on the split foot of No. 43. Push No. 43 to the right and this will force the "A" side of the anchor down into the escape wheel. Exerting enough force will cause the anchor arm to slip on the shaft at Point "C". When you release the foot on No. 43, the "A" side of the anchor will then be too high over the escape wheel and the movement will not run. Forcing the "B" side down will cause a similar slippage and reverse this situation. The object here is to have "A" and "B" level over the escape wheel exactly when the anchor arm assembly (No. 43) is vertical.
7. When the anchor is level, No. 43 will move rapidly from side to side. Now attach the suspension arm (No. 38). The added weight and resistance of the arm will slow the side to side motion. If motion stops, relevel the anchor as before, this time with No. 38 attached. Try to obtain an even sound, time lapse between the tick and the tock.
8. Attach the pendulum. Now you have added a lot of weight to the time train. The added weight means more resistance. The side to side motion of the anchor arm assembly will slow. Listen to hear the tick at the one side and tock at the other side of the pendulum swing. Adjust the anchor to give an even sound. Observe the escape wheel, from the rear, as it rocks the anchor from side to side. No. 38A may be used at this time for fine left to right corrections of balance.
9. Attach the two remaining weights and observe the clock overnight before moving it to its permanent location. Weights may be pulled to within one-half inch of the bottom of the movement to obtain maximum running time. Take care not to jam the weight shell hook into the movement mounting brackets. (See Fig. 1, Page 4.)
10. Remove the weights. Relocate the clock in its original position. This time it will be level when you place it where you marked the floor. Relevel with the pendulum bob if necessary. Install the hood back panel. Attach the weights and start the clock.

IMPORTANT NOTICE

EMPEROR CLOCK has taken special care to see that your order was properly packed. It was delivered to the transportation company in perfect condition; the carrier receipted for it and agreed to deliver it in the same good condition. However, merchandise is sometimes damaged in shipment — if this should happen to you, please follow our instructions as listed below. Your co-operation will be appreciated.

DAMAGED MERCHANDISE

If your shipment has arrived with OBVIOUS OR CONCEALED damage, please take these two simple steps:

1. Fill out the CUSTOMER DAMAGE REPORT on bottom of this page, and mail it to us.
2. Ask the transportation company (who delivered your order) to furnish you with an INSPECTION REPORT, and send it to us as soon as possible.

IMPORTANT

OUR RESPONSIBILITY CEASES WHEN MERCHANDISE IS DELIVERED TO A COMMON CARRIER. ALL CLAIMS FOR DAMAGED MERCHANDISE SHOULD BE MADE AGAINST THE CARRIER. NO MERCHANDISE IS TO BE RETURNED WITHOUT WRITTEN AUTHORITY.

CUSTOMER DAMAGE REPORT

Fill out and mail to:
Claims Dept., Emperor Clock Co.
Fairhope, Alabama 36532

DATE _____

NAME _____

STREET _____

CITY _____ STATE _____ ZIP _____

DESCRIPTION (or Cat. No.) OF ITEM: _____

DESCRIPTION OF DAMAGE (Please include details of type of damage, such as "broken, dented, chipped, split"—and part and location of damage, such as "left front leg"—specify right or left as you face the item):

INSPECTION REPORT from Transportation Company: ☐ ENCLOSED ☐ WILL FOLLOW

PLEASE REMEMBER, DO NOT RETURN ANY MERCHANDISE UNTIL WE HAVE NOTIFIED YOU IN WRITING TO DO SO.

IN THE EVENT OF A LONG DISTANCE MOVE YOU SHOULD DO THE FOLLOWING:

1. *Wrap your weights separately to prevent scratching.*
2. *Wrap your pendulum bob.*
3. *Be sure silence levers No. 19 and No. 20 are against chime and strike levers.*
4. *Be sure chains are tied with a bread tie, so they cannot come loose and interfere with the inside of the movement.*
5. *Secure the chains to the back board with masking tape for positive hold-down.*
6. *Remove the finial on the crown and wrap separately.*

MAINTENANCE

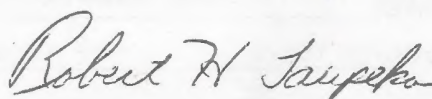
Your Emperor Grandfather Clock Movement has been factory lubricated. Only the finest lubricants produced by modern technology have been used to provide lubrication and trouble free operation. After 20 or 30 years, professional maintenance should be considered.

Our Guarantee

*"Good Will and integrity, like a good name, is won by many acts . . . and lost by one."
While we always strive for perfection, there is still a very human world. If for any reason the contents of this box are imperfect, please notify us.*

FULL ONE YEAR WARRANTY

All movements are superbly crafted time keeping instruments of the finest quality, made by Germany's finest clocksmiths. Each movement carries a full one year warranty. Obtain written authorization from factory for warranty repairs. Movements must be returned in original shipping cartons.



Robert H. Taupeka, President
Emperor Clock Company
Emperor Industrial Park
Fairhope, Alabama 36532

**ALL REPAIRS MUST BE MADE IN
OUR FAIRHOPE, ALABAMA PLANT,
LOCAL REPAIRS NOT AUTHORIZED.**

**OBTAIN WRITTEN AUTHORIZATION
FROM FACTORY FOR WARRANTY
REPAIRS. MOVEMENT MUST BE
RETURNED IN ORIGINAL SHIPPING
CARTON.**